SHARP

MX-2301N
Digital Multifunctional System

Full-Colour MFP:
Efficient, **Productive and Elegant**

23 PPM in
Colour & B/W

Touch-Screen
LCD Display

Quality you can **depend on every day**

If you're looking for a reliable office colour multifunction system that has the speed, quality and ease of use to satisfy the whole team's daily requirements, then look no further than the new MX-2301N.

Now everyone can print and copy at speeds of up to 23 pages per minute (in colour or black and white) due to its advanced single pass printing technology.

Complex jobs can be handled with ease, thanks to a generous paper capacity, a handy 8.1" LCD touch screen display, powerful productivity tools and the innovative, space-saving Inner Finisher option for simple sorting, stapling and hole punching.

What's more, thanks to Sharp OSA® (Open Systems Architecture), you can customise the MX-2301N to automate specific business tasks for even greater efficiency, such as storing and managing documents.

Something for everyone

Print, copy, scan, fax, finish: if you're about to invest in colour and you need quality, reliability and value, you'll love the new MX-2301N. What's more, with a handy range of optional upgrades to choose from, it's easy to specify a configuration that meets the exact needs of your office. And IT Administrators will love the remote access control and configuration capabilities.

High Performance **Full Colour MFP**

Up to **2,100 Sheet Paper Capacity**

MX-2301N **- Key Features**

Full-colour MFP

- Supports Gigabit Ethernet and the most commonly used network operating systems and protocols
- Standard PCL6 and optional PS3 emulation
- Sharpdesk for integrated document management on a PC
- Document filing function to instantly reuse job data saved on the HDD
- Optional Super G3 fax and Internet fax (in B/W)
- LDAP compatibility for easy browsing of e-mail addresses
- USB port at the front of the MFP allows easy scan to/print from USB memory
- 8.1-inch touch-screen LCD enables easy operation of key functions

Highly productive output

- Speedy output of max. 23 ppm/cpm in colour and B/W
- Fast first copy time of 8.9 sec. in colour and 6.0 sec. in B/W
- Standard 1,100-sheet paper capacity, expandable to max. 2,100 sheets
- Scan speed of 50 opm in colour and B/W
- Optional space saving Inner Finisher enables sorting, stapling and hole punching
- Network tandem function doubles output speed by linking two MFPs
- Standard electronic sorting and offset stacking for greater efficiency
- 100-sheet Reversing Single Pass Feeder (RSPF) and stackless duplex module
- Standard 80GB Hard Drive

Sharp's one-of-a-kind features

- Advanced copy/print functions include book copy, proof printing, PDF/TIFF/JPEG and USB memory direct printing
- Sharp OSA® (Open Systems Architecture)* to customise the machine to meet exact user needs
- Auto Colour Selection automatically selects corresponding copy modes to match colour or B/W pages in a multi-page original containing both
- Control panel can be remotely displayed and operated on a PC

* Requires optional MX-AMX2 and/or MX-AMX3

Industry-leading security solutions

- SSL and IPsec enable data encryption for secure network communications
- Secure Network Interface provides network port and protocol management as well as a firewall that prevents direct connection and access by unauthorised users
- Encrypted PDF with password protection for secure scanning and direct printing

Environmentally advanced design

- Newly developed, environmentally conscious supplies (low toner consumption and long-life photoconductor)
- Industry-leading energy-saving design (1W in night-time standby for fax reception)
- Energy Star Version 1.1 compliant
- Manual power save button

High quality imaging

- 600 x 600 dpi print resolution
- New toner and developer work in synergy to produce excellent image quality
- Oil-less toner for non-glossy colour output

600 x 600 dpi
Print Resolution

Space Saving
Inner Finisher

Reliable everyday **printing**

The MX-2301N comes with everything you need for fast, reliable everyday printing. A freshly formulated combination of developer and oil-less toner, specially created for optimum image quality, enhances its crisp 600 x 600 dpi resolution for page after page of dependable Sharp quality.

It's quick, too. Single-pass printing technology means that you can achieve the maximum 23 pages per minute in colour as well as in black & white, and you can even share jobs between two machines on the same network to finish in half the time!

Automatic two-sided printing and offset stacking together with various finishing options make it easy to handle complex jobs and, for busy offices, the 1,100-sheet paper supply can be expanded right the way up to 2,100-sheets for longer uninterrupted printing.

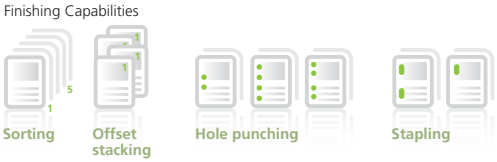
At a glance

- ***Efficient colour and black & white printing*** *speeds of up to 23 pages per minute*
- ***600 x 600*** *dpi resolution*
- ***Stackless duplex module*** *saves you filing space and money*
- ***Network printing*** *supports the most commonly used network operating systems and protocols*
- ***USB memory direct printing*** *- conveniently print data directly from most USB memory devices, without the need for a PC*
- ***PDF/TIFF/JPEG direct print****[*1]* *- save time by printing PDF, TIFF or JPEG files without using the printer driver, either by calling and printing the file directly from an FTP server, direct printing from a Web page, or direct printing of e-mail attachments*
- ***Supports PCL6*** *printer language emulations*
- ***Network tandem function*** *- double the effective output speed by sharing jobs between two MFPs on the same network*
- ***Proof printing*** *- check a trial set before printing out a multi-page document in large numbers*
- ***PostScript 3 is available****[*1]* *for compatibility with more fonts and better graphics handling*
- ***Barcode font print compatibility****[*2]*

*[*1] Requires optional MX-PKX1 for PDF direct printing and PostScript 3; may not support all PDF, TIFF and JPEG file formats.*

*[*2] Requires optional AR-PF1.*

Finishing Capabilities



(10Base-T/100Base-TX/1000Base-T)

- Windows NT® 4.0, Windows Server® 2003
- Windows® 98/Me, Windows® 2000/XP, Windows Vista®
- Macintosh, Novell, UNIX, AS400

Auto Colour
Selection

23 CPM
in Colour & B/W

Fast, high quality **copying**

With speeds of up to 23 copies per minute you'll find copying - in black & white or colour - just as fast as printing.

The MX-2301N also has a range of advanced copy functions that automatically ensure exceptional copy quality while saving you time and effort. Originals with mixed paper sizes, mixed colour and black & white documents, pages with halftone or colour backgrounds: now you can handle it all.

High quality imaging with new toner

A good test of any copier is how accurately it reproduces the original. That's why Sharp has formulated a special new toner for the MX-2301N that excels at reproducing accurate, natural-looking colours, very fine lines, small characters and tricky halftones. It's oil-less, too, which means that you can write on them and attach sticky notes.

Special applications

- **Proof copy function** - check a trial set and make any necessary copy adjustments before outputting the entire volume
- **Colour stamp function** - stamps page numbers, the date or text such as 'CONFIDENTIAL' in up to four different colours

At a glance

- ***Quick first copy out time*** *- 8.9 sec. in colour, 6.0 sec. in black & white*
- ***Convenient 100-sheet Reversing Single Pass Feeder (RSPF)*** *makes any scan job easy; even double-sided documents are handled automatically*
- ***Mixed size original copy mode*** *automatically distinguishes documents of mixed sizes*[*1] *fed through the RSPF and chooses the appropriate paper*
- ***Enhanced Auto Colour Mode*** *clearly reproduces text even with colour or halftone dots in the background*
- ***Auto Colour Selection*** *- the MX-2301N will automatically detect colour and black & white documents from multi-page originals by selecting the appropriate mode for each page and then output the copy to match the original*
- ***Electronic sorting and offset stacking*** *for highly productive copying*
- ***Job Build function*** *- large-volume jobs can be scanned in batches and stored for output as a single job*
- ***Image editing functions*** *- multi-shot (4-in-1/2-in-1), multi-page enlargement, image repeat, mirror image and more*

[*1] *Some restrictions apply when combining paper sizes of different format series.*

Auto Colour Selection in Copying

Original with colour and black & white pages

Distinguishes colour and black & white pages

Outputs colour pages in Colour Mode and black & white pages in Black & White Mode

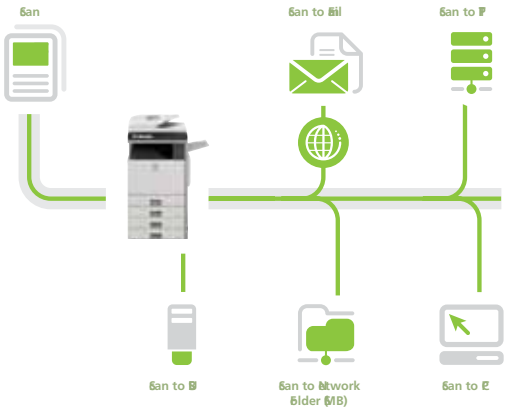
50 OPM
Scan Speed

Scan to **Email, Network, PC, FTP** or **USB**

Effortless colour network **scanning**

Scanning is not only easier and more versatile with the new MX-2301N, but with a speed as high as 50 originals per minute (at 200 x 200 dpi), it's faster too. What's more, the 100-sheet Reversing Single Pass Feeder (RSPF) easily handles batches of mixed documents - even in a combination of colour, black and white, and mixed sizes up to A3. Just load them and go.

Once you've scanned your documents into digital files you can send them wherever you want. Just browse through the email address book (support for LDAP Lightweight Directory Access Protocol allows easy browsing of email addresses), select your recipients and click to send. Alternatively, you can send scanned files directly to a PC, Network Folder (SMB), Email, FTP server or even to a USB memory stick.



At a glance

- ***Full-colour scanning*** *to your PC, e-mail recipients, FTP servers, network folders (SMB) or USB memory devices*
- ***Scan speed of max. 50 originals per minute****[*1]* *- black & white and colour*
- ***Mixed-size original scanning*** *automatically accommodates documents of different sizes[*2] through the RSPF*
- ***Auto Colour Selection*** *- if a multi-page original contains both colour and black & white pages, the MX-2301N selects colour or black & white modes accordingly*
- ***Compatible with Network TWAIN-compliant applications*** *(pull scan)*
- ***Includes Sharpdesk*** *document management software*
- ***Lightweight Directory Access Protocol (LDAP)*** *allows easy browsing of e-mail addresses for rapid distribution of scanned documents, as well as automatic synchronisation with your primary e-mail server*
- ***Various scanned file formats*** *- TIFF, PDF, encrypted PDF, JPEG and XPS*
- ***Easy text entry*** *- preset frequently used e-mail subject titles or messages for easy one-touch entry*

*[*1] 50 originals per minute scanned at 200 x 200 dpi.*

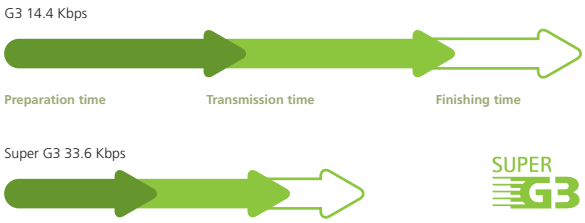
*[*2] Some restrictions apply when combining paper sizes of different format series.*

33,600 BPS
Super G3 Fax

Duplex
Faxing

Versatile fax with choice of transmission

There's no need to take up space with a separate fax machine; with an optional fax expansion kit installed on the MX-2301N, everyone in your office can send faxes quickly and easily. Paper documents can be scanned and sent over ultra-fast 33,600 bps Super G3 fax, or you can send digital documents directly from your PC with the PC-Fax/PC-Internet Fax function. And that's not all.



Automated Fax Finishing

A built-in duplex module saves resources by automatically printing inbound faxes on both sides of the page; you can set the machine to automatically make copies for distribution, and if you have the optional finisher installed it will even staple multi-page faxes to keep them organised.

At a glance

- ***Extremely versatile*** *- send or receive single or double-sided faxes up to A3 in size*
- ***Saves time*** *- Super G3/JBIG compression for extra speed*
  - on-line transmission reduces total operation time
  - 100-sheet Reversing Single Pass Feeder (RSPF) enhances efficiency
- ***Rapid transmission*** *- register up to 999 frequently used numbers and dial with one-touch operation*
- ***Paperless faxing with inbound routing*** *lets you check incoming faxes via e-mail and print only what you need*
- ***Dependable*** *- flash memory prevents data loss in a power failure*
- ***Duplex faxing*** *- scan and send both pages of two-sided documents and print incoming faxes onto both sides of paper*
- ***Internet fax*** *- send and receive faxes over the Internet with other ITU-T T-37 compliant machines without worrying about costs*
- ***PC-Fax/PC-Internet Fax*** *- send data directly from a PC to a fax machine without printing to paper*

Note: Faxing and Internet faxing are available in black & white only.

Sharp OSA®

Sharpdesk

Powerful document management

Document management can now be more efficient than ever, thanks to an internal 80 GB hard disk for storing documents and previous jobs. Documents can be retrieved in moments and entire print runs can be repeated without recreating the job.

Up to **3,000 files or 5,500 pages**[*1] of copy, print, scan and fax data can be filed in up to **1,000 shared, long-term storage in folders,** and up to **1,000 files or 1,700 pages**[*1] **placed in temporary storage** for repeating jobs without having to recreate them.

Easy document management with Sharpdesk

The MX-2301N is supplied with the latest, new-look version of Sharpdesk, our powerful yet easy to use document management software. Now including a central management utility for remote, single-point installation on multiple network clients, Sharpdesk lets users manage and manipulate documents in over 200 file formats in a single application on the PC desktop, integrating digital and paper documents.

- Contemporary desktop display with **thumbnail viewing**
- Convenient and time-saving **remote 'push' installation**
- Sharpdesk Imaging provides **annotation tools** for paper-free proofreading
- **Composer** combines different types of files into a single document
- **Optical character recognition** converts documents into editable text files
- **Output zone** distributes files to e-mail, printers, and other applications
- **File search** by file name, keyword, or thumbnail

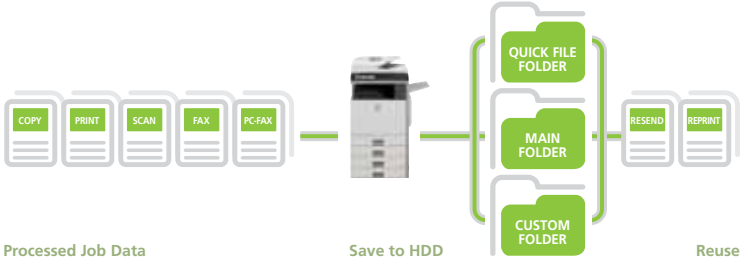
Sharp OSA® (Open Systems Architecture)

You can enhance the productivity of the MX-2301N still further thanks to Sharp OSA (Open Systems Architecture), which lets 3rd party developers directly integrate the MFP with your business applications. There are three Sharp OSA modules:

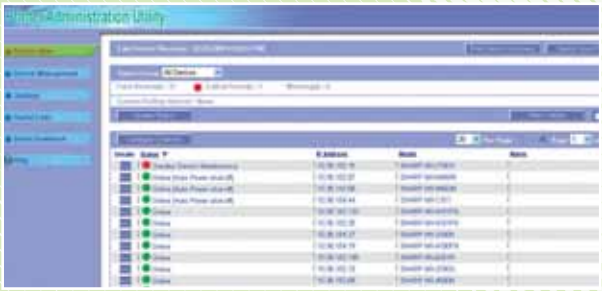
- **Application Integration Module (MX-AMX1)** - lets users add data to scanned documents before sending them directly to applications for processing and archiving.
- **Application Communication Module (MX-AMX2)** - lets remote applications create, configure, and execute scanning and printing jobs on the MFP.
- **External Account Module (MX-AMX3)** - tracks usage by individuals and workgroups and restricts usage according to individual access right.

*[*1] Measured using Sharp's standard chart (A4 with 6% coverage, black and white). The Quick File Folder shares the HDD with the Job Build function; up to 12GB of data storage is available when using both functions. The storage capacity is less for colour pages.*

*[*2] For fax and internet fax jobs, only transmitted data (not received faxes) can be saved in the Document Filing function.*



Printer Administration Utility



Remote Front Panel

Integrated device management

Like all Sharp MFPs, the MX-2301N is easy to configure and support, and multiple devices can be managed from a single remote location. The result is minimum time and effort for maximum work efficiency.

Web-based system settings

Administrators can configure important system settings such as address book control, document filing management, and operator access control from across the network as well as from the front control panel.

Access control

You can keep control of running costs by restricting who can use the MFP and for what purpose, giving permission to carry out long print or copy runs to specific individuals only, for example. Access and usage rights can be set up for different workgroups and departments, with further control achieved through the configuration of up to 1,000 password-protected user accounts with customised settings.

Remote diagnosis

The MX-2301N can be monitored remotely through a web browser and conditions such as 'Low Toner' will appear on the MFP's web page. In addition, features such as E-Mail Status and Alert will automatically create and send email alerts when corrective action or maintenance is required.

Network utility software

Sharp's Printer Administration Utility (PAU), supplied as standard, makes the configuration of printers and MFPs quicker and easier than ever before. With PAU, you can monitor any SNMP-compliant printer on the network, without ever leaving your desk and enjoy complete, real-time control of your printer fleet through any standard web browser. Error-reporting, technical support, driver installation, printer configuration: everything is easier and more accessible.

Another network utility, **Sharp Printer Status Monitor**, lets people check the MFP's operating status, toner levels, paper supplies and features before they start a job, as well as displaying an icon on the desktop when the work has been completed and the documents are ready for collection.

Device cloning for rapid deployment

It is quick and easy to deploy Sharp MFPs. Simply set up the first one, copy its settings and then transfer the entire configuration to each additional machine via a web browser. For extra convenience, you can edit the settings before transferring them.

Remote operation for easier support

The remote access interface saves time and effort while minimising downtime by letting your support staff view and operate the MFP's control panel without leaving their desks. The support technician simply opens a web browser and either fixes the problem directly or gives step-by-step training to the operator to achieve the same result.

User
Authentication

Total **Data Security**

Robust multi-layer **security**

The MX-2301N comes with a range of robust, built-in security features designed to protect your business information from all kinds of unauthorised interception.

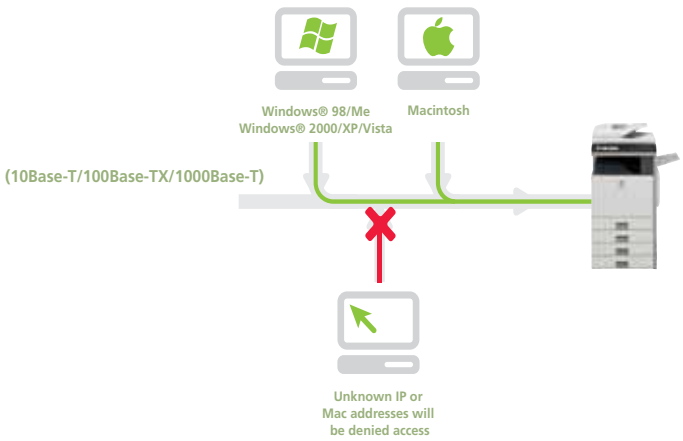
PIN printing, for example, reduces the likelihood of sensitive documents being left in the open by requiring the user to enter a PIN code at the machine before the documents can be printed. Original documents can be safely scanned into an encrypted PDF format to prevent their unauthorised viewing, and password protection prevents the opportunistic copying or distributing of privileged information.

In addition, a Secure Network Interface supported by proven security technologies including SSL/IPsec encryption, IP/Mac address filtering and IEEE802.1X, are used to protect the MX-2301N - and your office network - from external attacks and all attempts to retrieve data by covert means.

At a glance

- ***Encrypted PDF with password protection*** *prevents unauthorised viewing of confidential image data* *1
- ***Secure Network Interface*** *provides network port and protocol management, as well as a firewall that prevents direct connection and access by unauthorised users*
- ***Confidential data storage and printing*** *protects sensitive information by requiring the user to enter a PIN code before the documents are produced*
- ***Secure Sockets Layer (SSL)*** *encrypts data communications to prevent data leakage through the network*
- ***User authentication*** *requires logging into the machine with passwords for machine access and IEEE802.1X*

*1 *Password Protection is available as standard. Encryption is optional.*



Finishing Options

Connectivity Options

MX-2301N - **Options**

Finishing

1. MX-FNX9 Finisher
A3 to B5 (offset/staple), A3W to A5R*1 (non offset)
Offset tray (upper): max. 500-sheet paper capacity*2
Stapling capacity: max. 50-sheet multi-position staple*2
Staple position: 3 locations (front, rear or 2 point stitching)

Optional Punch Module for MX-FNX9:
MX-PNX1A - 2 Hole Punch Module
MX-PNX1C - 4 Hole Punch Module
MX-PNX1D - 4 Hole Wide Punch Module

2. MX-TRX1 Exit Tray Unit

Base Unit

3. MX-DEX7 Stand with 2 x 500 Sheet Paper Drawers
A3 to B5R, 500 sheets each (80 g/m²) for lower and upper trays

4. MX-DK121
Cabinet

5. MX-DEX6 Stand with 500 Sheet Paper Drawer
A3 to B5R, 500 sheets (80 g/m²)

Connectivity Board

Printing

MX-PKX1 PS3 Expansion Kit
Enables PostScript printing
AR-PF1 Barcode Font Kit

Faxing

6. MX-FXX2 Fax Expansion Kit
Super G3 fax module
MX-FWX1 Internet Fax Expansion Kit

Scanning

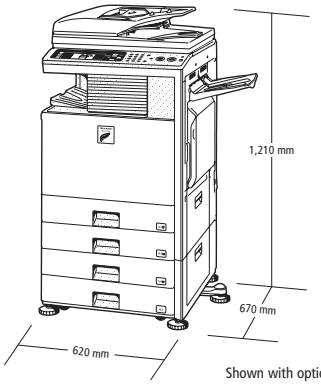
AR-SU1 Stamp Unit
Marks already scanned documents for checking

Sharpdesk Licenses

MX-USX1 x 1 user
MX-USX5 x 5 users
MX-US10 x 10 users
MX-US50 x 50 users
MX-USA0 x 100 users

Sharp OSA®

MX-AMX1 Application Integration Module
MX-AMX2 Application Communication Module
MX-AMX3 External Account Module



Shown with options.

*1 Except A5R
*2 A4 or smaller, 80 g/m²

Some options may not be available in some areas

Specifications

MX-2301N
Digital Multifunctional System

General

Engine speed (Max.)	A4	A3
Colour ppm/cpm	23	12
B/W ppm/cpm	23	12
Paper size	Max. A3W, Min. A5R	
Paper weight	Drawer: 60g/m² - 209g/m²	
	Bypass: 55g/m² - 256g/m²	
Paper capacity	Standard: 1,100 sheets	
	(2 x 500-sheet drawers & 100-sheet multi-bypass tray)	
	Maximum: 2,100 sheets	
	(4 x 500-sheet drawers & 100-sheet multi-bypass tray)	
Warm-up time[*1]	Less than 60 sec.	
Memory	[Copier] Standard: 1GB	
	[Printer] Standard: 512MB	
	[HDD] Standard: 80GB [*2]	
Power requirements	Rated local AC voltage ±10%, 50/60 Hz	
Power consumption (Max.)	1.84 kW (220 to 240V)	
Dimensions (W x D x H)	620 x 670 x 950 mm	
Weight	Approx. 112 kg	

Copier

Original paper size	Max. A3
First copy time[*3]	Full colour: 8.9 sec., B/W: 6.0 sec.
Continuous copy	Max. 999 copies
Resolution	600 x 600 dpi (colour and B/W)
Gradation	Equivalent to 256 levels
Zoom range	25 to 400% (25 to 200% using RSPF) in 1% increments
Preset copy ratios	10 ratios (5R/5E)

Network Scanner

Scan method	Push scan (via operation panel), Pull scan (with TWAIN-supporting application)
Resolution	Push scan: 100, 200, 300, 400, 600 dpi
	Pull scan: 75, 100, 150, 200, 300, 400, 600 dpi, 50 to 9600 dpi, custom
File formats	TIFF, PDF, Encrypted PDF, JPEG (colour only), XPS
Scanner utilities	Sharpdesk
Scan destinations	Scan to e-mail, desktop, FTP server, network folder (SMB), USB memory

Document Filing

Document filing capacity	Main and custom folders: 38GB, 5,500 pages[*4] or 3,000 files
	Quick file folder: 12GB, 1,700 pages[*4] or 1,000 files
Stored jobs	Copy, print, direct print, scan, fax transmission[*5]
Storage folders	Quick file folder, main folder, custom folder (max. 1,000 folders)
Confidential storage	Password protection

Network Printer

Resolution	600 x 600 dpi
Interface	USB 2.0
	10Base-T/100Base-TX/1000Base-T
Supported OS[*6]	Standard: Windows® 2000, Windows™ Server 2003, Windows® XP,
	Windows® Vista, Windows™ Server 2008, Windows 7[*7]
	Optional: Mac OS 9.0 - 9.2.2, Mac OS X 10.2.8, 10.3.9, 10.4.11,
	10.5 - 10.5.6
Network protocols[*6]	TCP/IP (IPv4, IPv6), IPX/SPX (NetWare), NetBEUI, EtherTalk (AppleTalk)
Printing protocols	LPR, Raw TCP (port 9100), POP3 (e-mail printing), HTTP,
	Novell Printserver application with NDS and Bindery,
	FTP for downloading print files, EtherTalk printing, IPP
PDL emulation	Standard: PCL6
	Option[*6]: PS3
Available fonts	80 fonts for PCL, 136 fonts for PS3 emulation[*6]

B/W Facsimile (optional MX-FXX2 required)

Compression method	MH/MR/MMR/JBIG
Communication protocol	Super G3/G3
Transmission time	Less than 3 sec.[*8]
Modem speed	33,600 bps to 2,400 bps with automatic fallback
Transmission resolution	Standard: 203.2 x 97.8 dpi
	Extra Fine: 406.4 x 391 dpi
Recording width	A3 to A5
Memory	8MB flash memory
Grey scale levels	Equivalent to 256 levels

CITRIX® SAP® Printer Vendor Solution ENERGY STAR OSA® Sharp Open Systems Architecture

**1 May vary depending on operating environment. *2: 1GB = One billion bytes when referring to hard drive capacity. Actual formatted capacity is less. *3: May vary depending on machine conditions. *4: Measured using Sharp's standard chart (A4 with 6% coverage, B/W). The Quick Folder shares memory with the Job Build function; up to 12GB of data storage is available when using both functions. The storage capacity will be less for colour pages. *5: Optional MX-FXX2 required. *6: Optional MX-PKX1 required for Mac OS, EtherTalk and PS3. *7: Available at a later date. *8: Based on Sharp's standard chart with approx. 700 characters (A4 portrait) at standard resolution in Supe G3 mode, 33,600 bps, JBIG compression.*

SHARP

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